IN THE CLAIMS

1. (currently amended) A method to identify a putative cancer therapeutic comprising the steps and in the order of:

(a) identifying a polynucleotide which is uniquely expressed or overexpressed in a target human cancer cell as compared with a control human non-cancer cell;

(b) determining the protein corresponding to said identified polynucleotide;

(c) determining if said protein, or fragment thereof, is immunogenic, wherein the ability of said protein, or fragment thereof, to elicit an immune response against said target cancer cell is indicative of a putative cancer therapeutic effect by said protein, or fragment thereof.

2. (currently amended) The method of claim 1, further comprising the step (d) wherein said immunogenic protein, or fragment thereof, is administered to a subject in a gene delivery vehicle.

3. (currently amended) The method of claim 1, further comprising the step (d) wherein said immunogenic protein, or fragment thereof, is administered to a subject in an antigen presenting cell.

4. (currently amended) The method of claim 1, further comprising the steps of

(ad) generating immune effector cells reactive with an immunogenic protein, and

(be) ~~determining~~administering if said immune effector cells ~~are immunogenic~~, to a subject wherein the ability of said immune effector cells to elicit an immune response against said target cancer cell is indicative of a putative

cancer therapeutic effect by said immune effector cells.

5. (currently amended) The method of claim 1, further comprising the steps of

(ad) generating antibodies reactive with an immunogenic protein and,

(be) ~~determining~~ administering if said antibodies ~~are immunogenic~~ to a subject, wherein the ability of said antibodies to elicit an immune response against said target cancer cell is indicative of a putative cancer therapeutic effect by said antibodies.

6. (Original) The method of claim 5, wherein said antibodies are monoclonal antibodies.

7. (currently amended) A method to design a cancer vaccine from a sample obtained from a subject suffering from cancer, the improvement comprising:

identifying an amino acid sequence which is not ~~previously~~ known to be antigenic, but which is (i) firstly, identified as uniquely expressed or overexpressed in a target human cancer cell from said subject, as compared with a control human non-cancer cell, and (ii) secondly, determined as capable of eliciting an immune response against said target cancer cell; and

designing a cancer vaccine corresponding to said amino acid sequence.

8. (Withdrawn) A method for inducing an immune response against a target cell in a subject, comprising delivering to the subject an effective amount of an antigenic peptide that is uniquely expressed or overexpressed in the target cell and has not been previously identified as having the ability to induce an immune response in the subject, whereby an immune response is mounted against the target cell.

9. (Withdrawn) The method of claim 8, wherein the peptide is delivered as a sequence of amino acids.

10. (Withdrawn) The method of claim 8, wherein the peptide is delivered as a polynucleotide that encodes the antigenic peptide.

11. (Withdrawn) The method of claim 8, wherein the uniquely or overexpressed polynucleotide is identified by the method comprising:

(a) obtaining a set of polynucleotides representing gene expression in a target cell;
(b) obtaining a set of polynucleotides representing gene expression in a control cell;
(c) identifying a unique or overexpressed polynucleotide in the target cell as compared to the control cell; and
(d) identifying a unique or overexpressed polynucleotide which is capable of eliciting an immune response in the subject.

12. (Withdrawn) The method of claim 8, further comprising administering an effective amount of a cytokine and/or co-stimulatory molecule to the subject.

13. (Withdrawn) The method of claim 10, wherein the polynucleotide is administered to the subject in a gene delivery vehicle.

14. (Withdrawn) The method of claim 10, wherein the polynucleotide is administered to the subject in a host cell.

15. (Withdrawn) The method of claim 14, wherein the host cell is a antigen presenting cell.

16. (Withdrawn) The method of claim 14 or 15, further comprising administering an effective amount of a cytokine and/or co-stimulatory molecule to the subject.

17. (Withdrawn) A method for enhancing an immune response in a subject against a target cell, comprising administering to the subject an effective amount of an immune effector cell that was raised against an antigenic peptide that is uniquely expressed or overexpressed in the target cell and has not been previously identified as having the ability to induce an immune response in the subject, whereby an immune response is mounted against the target cell.

18. (Withdrawn) The method of claim 17, wherein the uniquely or overexpressed polynucleotide is identified by the method comprising:

(a) obtaining a set of polynucleotides representing gene expression in a target cell;
(b) obtaining a set of polynucleotides representing gene expression in a control cell;
(c) identifying a unique or overexpressed polynucleotide in the target cell as compared to the control cell; and
(d) identifying a unique or overexpressed polynucleotide which is capable of eliciting an immune response in the subject.

19. (Withdrawn) The method of claim 17, further comprising administering an effective amount of a cytokine and/or co-stimulatory molecule to the subject.

20. (Withdrawn) The method of claim 17, wherein said immune effector cell is a cytotoxic T lymphocyte.

21. (Withdrawn) A method for enhancing an immune response in a subject against a target cell, comprising administering to the subject an effective amount of an antibody

that was raised against an antigenic peptide that is uniquely expressed or overexpressed in the target cell and has not been previously identified as having the ability to induce an immune response in the subject, whereby an immune response is mounted against the target cell.

22. (Withdrawn) The method of claim 21, wherein the uniquely or overexpressed polynucleotide is identified by the method comprising:

(a) obtaining a set of polynucleotides representing gene expression in a target cell;
(b) obtaining a set of polynucleotides representing gene expression in a control cell;
(c) identifying a unique or overexpressed polynucleotide in the target cell as compared to the control cell; and
(d) identifying a unique or overexpressed polynucleotide which is capable of eliciting an immune response in the subject.

23. (Withdrawn) The method of claim 21, further comprising administering an effective amount of a cytokine and/or co-stimulatory molecule to the subject.

24. (Withdrawn) The method of claim 21, wherein said antibody is a monoclonal antibody.

25. (currently amended) A method to identify a putative cancer therapeutic comprising the steps and in the order of:

a) identifying a ~~first~~ polynucleotide which is expressed at a higher level in a target human cancer cell as compared with a control human non-cancer cell;
(b) determining the protein corresponding to said identified polynucleotide;

(c) determining if said protein is immunogenic comprising the steps of:

(i) introducing a gene transfer vector ~~containing a second polynucleotide comprising~~encoding a sequence corresponding to said protein into a antigen presenting cell (APC) under conditions whereby said ~~polynucleotide~~encoding sequence is expressed by said antigen presenting cell;

(ii) culturing naïve immune effector cells with said antigen presenting cell under conditions whereby said naïve immune effector cells are educated to recognize antigens presented on the surface of said antigen presenting cell in the context of an MHC molecule;

(iii) determining if said educated immune effector cells can lyse said target cancer cell,

wherein the ability of said protein to elicit an immune response against said target cancer cell is indicative of a putative cancer therapeutic effect by said immune effector cells.

26. (Previously presented) The method of claim 25 wherein said antigen presenting cell is a dendritic cell.